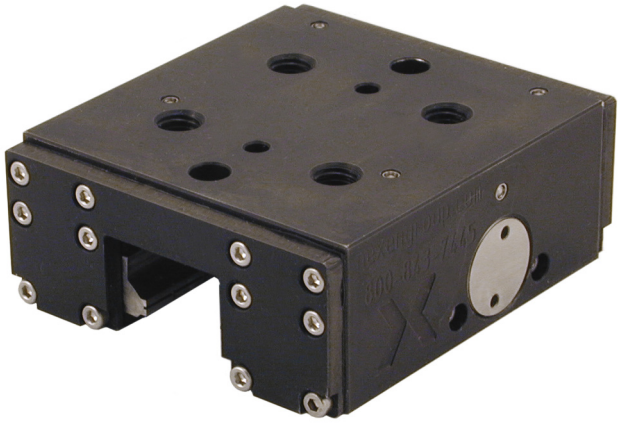
nexen

LINEAR MOTION CONTROL PRODUCTS

User Manual



Rail Brake

RB15, RB20, RB25, RB35, and RB45

FORM NO. L-21182-E-0606

In accordance with Nexen's established policy of constant product improvement, the specifications contained in this manual are subject to change without notice. Technical data listed in this manual are based on the latest information available at the time of printing and are also subject to change without notice.

Technical Support: 800-843-7445
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www.nexengroup.com

DANGER

Read this manual carefully before installation and operation.

Follow Nexen's instructions and integrate this unit into your system with care.

This unit should be installed, operated and maintained by qualified personnel ONLY.

Improper installation can damage your system or cause injury or death.

Comply with all applicable codes.

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Vadnais Heights, Minnesota 55127

ISO 9001 Certified

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INSTALLATION

REQUIRED TOOLS

- Clean, pressurized air
- Mounting bolts and appropriate wrench (See Table 1)

Accessories

- 4 mm [5/32 inch] soft air tubing
- Air valve
- Quick exhaust valve (optional)

AIR PREPARATION

NOTE: Nexen's Rail Brake units require clean, pressure-regulated air to maintain product function. Lubricated air may be used, but it is not required. The seals in all Nexen Rail Brakes are lubricated at the factory to ensure optimal performance and a long product life.

⚠ WARNING

While the lubricated air will keep the seals well lubricated, it may wash away the factory applied lubrication over time. For this reason, once lubricated air is used with a Nexen Rail Brake, it must always be used. Discontinuing use of lubricated air may cause seal failure.

The most effective and economical way to lubricate Nexen Rail Brakes is with an Air Line Lubricator, which inje oil into the pressurized air, forcing an oil mist into the air chamber.

Synthetic lubricants are not recommended.

AIR CONNECTIONS

⚠ DANGER

Support the load before disengaging the Rail Brake. Failure to support the load may result in serious injury or death.

The Rail Brake is equipped with one air inlet port used to disengage the brake (Refer to Figure 1 for location).

NOTE: Clean air is important for proper Rail Brake functioning. Debris inside the Rail Brake may inhibit performance and/or decrease product life.

1. Route clean air to the Rail Brake using soft lines. Supply adequate air pressure to ensure complete disengagement.

NOTE: For faster engagement and disengagement, install the valve close to the Rail Brake. Increasing air pressures will also speed the disengagement time, but do not exceed 6.9 bar [100 psi] air pressure.

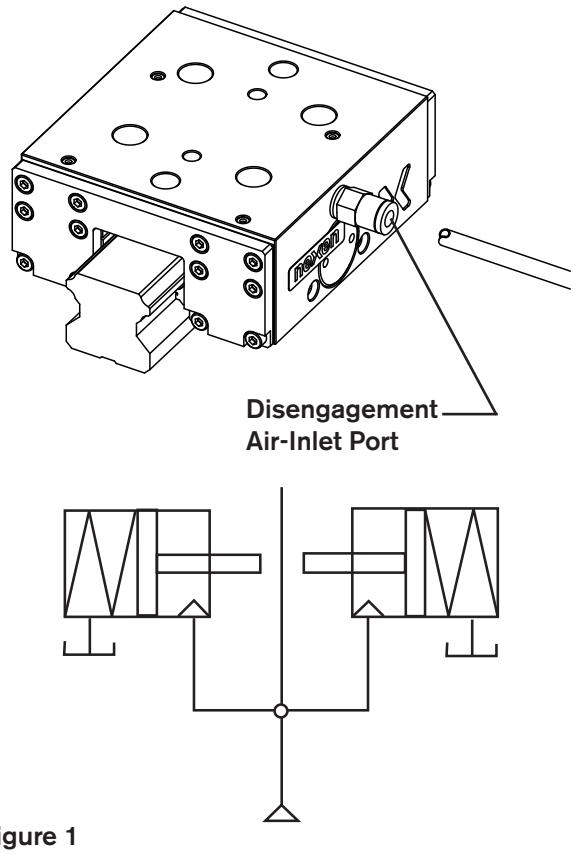

Figure 1

MOUNTING ON A RAIL

NOTE: Rail Brake must be disengaged with a minimum of 80 psi before mounting on a rail. Apply air pressure to disengage the Rail Brake (Refer to AIR CONNECTIONS for details).

NOTE: The Rail Brake friction facing gap is set at the factory to accommodate standard rails. If the gap is too tight for easy installation, see the FRICTION FACING GAP ADJUSTMENT section for details. Optimum facing gap is 0.002-0.003 inches.

1. Apply air pressure to disengage the Rail Brake.

2. Slide the Rail Brake onto the end of the rail, "X"-end first. Position the Rail Brake close to its final mounting position (Refer to Figure 2).

NOTE: The Rail Brake does not have an internal bearing system, so it must be indirectly tied into a linear bearing system.

3. Release air pressure to the brake before completing step #4.

4. Using customer supplied bolts, fasten the customer supplied mounting plate to the Rail Brake and rail bearing (Refer to Table 1 for Bolt Sizes) (Refer to Figure 3 for mounting configuration).

NOTE: Align both the Rail Brake and bearing to the same reference edge on the plate to ensure accurate positioning of the brake to the rail. (The optimum facing gap is 0.002-0.003 inches.)

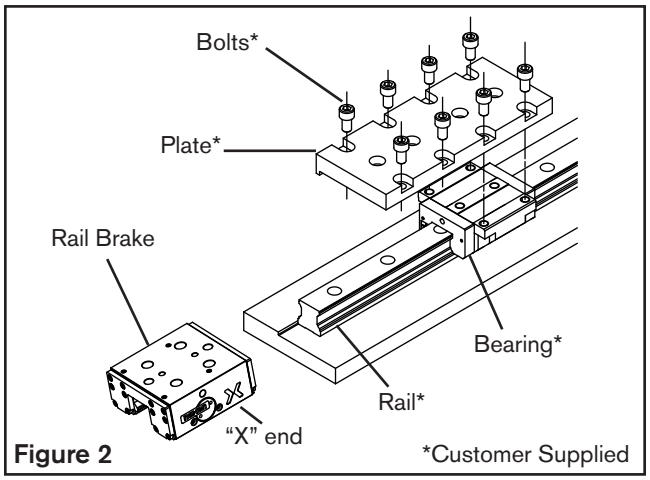

Figure 2 *Customer Supplied

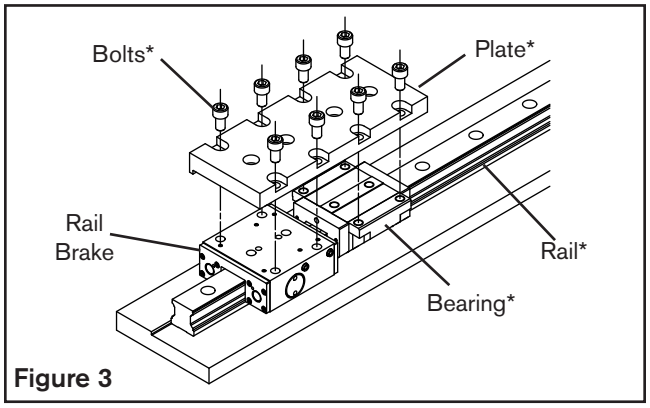

Figure 3

Table 1

Model	Bolt Size
RB15	M5 x 0.8
RB20	M6 x 1.0
RB25	M8 x 1.25
RB35	M10 x 1.5
RB45	M12 x 1.75

FRICTION FACING GAP ADJUSTMENT

Friction Facing Gap Adjustment may not be necessary in all instances. Gap is factory set to accommodate standard rail sizes. Before adjusting the gap, try sliding the Rail Brake onto the rail. If the fit is too tight, follow the adjustment steps below.

NOTE: To achieve its high force, the Rail Brake must maintain a close fit with the sides of the rail (0.002”-0.003”). The Rail Brake should have a sliding fit with the rail. A small amount of drag should be expected.

Rail Brake Guides are threaded into the Housing and are restricted from rotating by a Nexen label that goes between the Housing and the Guide (Refer to Figure 4).

1. Apply air pressure to disengage the Rail Brake.
2. Cut the label between the Housing and the Guide using a straight edge. Leave the label in place so it can act as a reference to the original position of the Guide.
3. Adjust the position of the facing by turning the Guides on each side of the Housing counterclockwise to back the Guides out of the Housing (Refer to Figure 5).

   A quarter turn should be sufficient to widen the friction facing gap enough for the Rail Brake to side onto the rail.
4. Slide the Rail Brake onto the rail. Position the Rail Brake close to its final mounting position (Refer to Figure 2).
5. Release the air pressure to center the brake on the rail.
6. Using customer supplied bolts, fasten the customer supplied mounting plate to the Rail Brake and rail bearing (Refer to Table 1 for Bolt Sizes) (Refer to Figure 3).
7. Apply 80 psi air pressure to the brake.
8. Turn the Guides on each side of the Housing to achieve a .002” to .003” clearance between the rail and the brake facing.

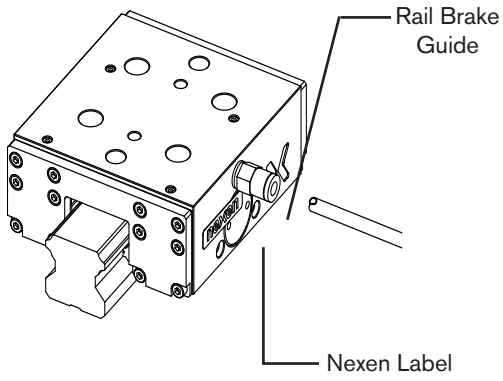

Figure 4

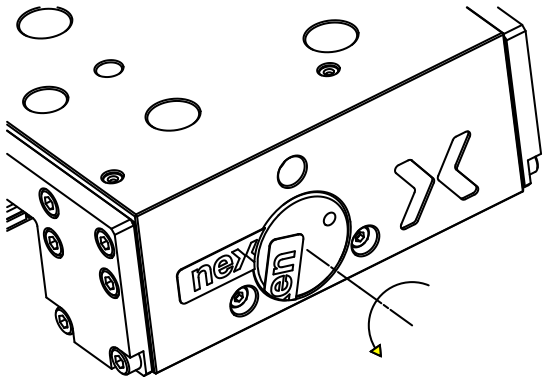

Figure 5

FRICTION FACING REPLACEMENT

⚠ DANGER

Support the load before disengaging the Rail Brake. Failure to support the load may result in serious injury or death.

1. With the load supported, remove the customer supplied bolts from the Rail Brake to free it from the plate/bearing assembly.
2. Apply air pressure to disengage the Rail Brake.
3. Slide the Rail Brake off the rail.
4. Using an Allen wrench, remove the socket head screws and springs that fasten each Friction Facing to the Rail Brake and discard the old Friction Facing (Refer to Figure 6).
5. Apply a thread locking compound to the socket head screws.
6. Position the new Friction Facings on the Rail Brake and hand-tighten the socket screws.
7. Follow the instructions in the INSTALLATION section to reinstall the Rail Brake.

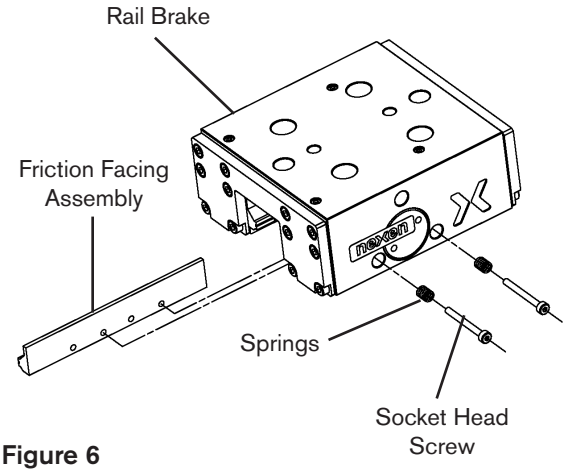

Figure 6

SERVICE RESTRICTIONS

NOTE: The Rail Brake assembly is designed for extended service life. Due to this long product life, stored spring energy, and the complexity of the internal components, Nexen recommends that all service be performed by trained personnel.

Do not attempt to remove or dismantle any part of the Rail Brake assembly. This product is spring loaded and under pressure. If the product malfunctions, replace the unit or contact Nexen.

WARRANTY

Warranties
Nexen warrants that the Products will be free from any defects in material or workmanship for a period of 12 months from the date of shipment. NEXEN MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. This warranty applies only if (a) the Product has been installed, used and maintained in accordance with any applicable Nexen installation or maintenance manual for the Product; (b) the alleged defect is not attributable to normal wear and tear; (c) the Product has not been altered, misused or used for purposes other than those for which it was intended; and (d) Buyer has given written notice of the alleged defect to Nexen, and delivered the allegedly defective Product to Nexen, within one year of the date of shipment.

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The exclusive remedy of the Buyer for any breach of the warranties set out above will be, at the sole discretion of Nexen, a repair or replacement with new, serviceably used or reconditioned Product, or issuance of credit in the amount of the purchase price paid to Nexen by the Buyer for the Products.

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In no event shall Nexen be liable for any consequential, indirect, incidental, or special damages of any nature whatsoever, including without limitation, lost profits arising from the sale or use of the Products.

Warranty Claim Procedures
To make a claim under this warranty, the claimant must give written notice of the alleged defect to whom the Product was purchased from and deliver the Product to same within one year of the date on which the alleged defect first became apparent.

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